

CLAIMS:

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1. A remote control apparatus capable of operating and adjusting a multi-channel receiver, comprising:

transmitting means for transmitting data to said receiver;

a microphone for receiving sound outputted from said receiver; and

5 arithmetic operating means for calculating the state of said receiver from said sound received by said microphone and analyzing an adjustment value for said receiver based on a calculation result,

wherein said transmitting means transmits data for initiating adjustment for said receiver and transmits an analysis result obtained by said arithmetic operating means.

10 2. The remote control apparatus according to claim 1, wherein the state of said receiver is at least one of a distance from a speaker to said remote control apparatus, a frequency characteristic, or a sound pressure level.

15 3. The remote control apparatus according to claim 1 or claim 2, wherein a number of said microphone is two.

4. The remote control apparatus according to claim 1 or claim 2, comprising:

an apparatus main body;

20 first and second microphones arranged to a front portion of said apparatus main body;

first and second rotation holding plates which respectively hold said first and second microphones and to which partial gear portions that can be engaged with each other are formed; and

25 a swiveling knob which engages with at least one of said first and second rotation holding plates to give a swiveling force thereto,

wherein said first and second rotation holding plates are pivoted to said apparatus main body such that said plates engage with each other to swivel in opposed directions.

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5. The remote control apparatus according to any of claims 1 to 4, further comprising receiving means for receiving data from said receiver, wherein said data received by said receiving means from said receiver is referred while the state of said receiver is calculated by said arithmetic operating means.

6. A receiver which is operated and adjusted by a remote control apparatus and capable of multi-channel sound outputting, comprising:
receiving means for receiving data from said remote control apparatus; and
controlling means for controlling sound outputs from respective channels,
wherein said controlling means outputs a predetermined test tone from each channel by receiving at said receiving means data for initiating adjustment from said remote control apparatus, and
said controlling means controls the state of each channel in accordance with an adjustment value by receiving at said receiving means said adjustment value from said remote control apparatus.

7. The receiver according to claim 6, wherein the state of said receiver is at least one of a distance from a speaker to said remote control apparatus, a frequency characteristic, or a sound pressure level.

8. The receiver according to claim 6 or claim 7, further comprising transmitting means for transmitting data to said remote control apparatus,
wherein data required for calculation in said remote control apparatus is transmitted.

9. An audio system comprising: a remote control apparatus capable of operating and adjusting a multi-channel receiver; and a receiver which is operated and adjusted by said remote control apparatus and capable of multi-channel sound outputting,
said remote control apparatus comprising: transmitting means for transmitting data to said receiver; a microphone for receiving sound outputted from said receiver; and arithmetic operating means which calculates the state of said receiver from the sound received by said microphone and analyzes an adjustment value for said receiver from a calculation result,

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said receiver comprising: receiving means for receiving data from said remote control apparatus; and controlling means for controlling sound outputs for respective channels,

wherein said controlling means of said receiver outputs a predetermined test tone from each channel by transmitting data for initiating adjustment for said receiver from said transmitting means and receiving data for initiating adjustment by said receiving means, and transmits an analysis result obtained by said arithmetic operating means from said transmitting means to said receiver, and said controlling means controls the state of each channel in accordance with an adjustment value received by said receiving means.

10. The audio system according to claim 9, wherein the state of said receiver is at least one of a distance from a speaker to said remote control apparatus, a frequency characteristic, or a sound pressure level.

11. The audio system according to claim 9 or claim 10, further comprising: transmitting means for transmitting data to said remote control apparatus on said receiver side; and receiving means for receiving data from said receiver on said remote control apparatus side,

wherein said remote control apparatus and said receiver alternately execute transmission and reception of data while performing adjustment.

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